

WHAT IS CLAIMED IS:

1. A system for real-time device driver error handling, comprising:  
a computer comprising a device driver, a monitoring unit and a device driver information, said monitoring unit monitoring an operating state and searching said device driver information, and outputting said diagnosing message to said computer when said device driver errors occur; and  
a web server comprising a driver error handling program, said device driver error handling program storing a standard driver information, performing a diagnosis of said device driver by comparing said standard driver information with said device driver information, and displaying said diagnosing result on said computer.

2. The system of claim 1, with said web server further comprising:  
a first portion storing said standard driver information;  
a second portion interpreting said device driver information searched by said monitoring unit;  
a third portion performing a diagnosis of said device driver by comparing said standard driver information from said first portion with said device driver information from said second portion; and  
a fourth portion displaying the diagnosing result from said third portion to said computer.

3. The system of claim 2, with said fourth portion displaying the error correction result to said computer after automatically correcting the error by said standard diagnosis information stored in said first portion in case of an automatically correctable error, said fourth portion displaying how to correct the error to said computer in case of automatically uncorrectable error when the device driver error occurs.

4. The system of claim 1, with said monitoring unit being a file of said computer, said file being a logical block of computer information as designated by a name and treated as a unit.

1           5.     The system of claim 4, with said file not being able to be manipulated by a user of  
2     said computer.

1           6.     The system of claim 2, with said standard driver information being changeable by an  
2     operator of said web server.

1           7.     The system of claim 3, with the automatically uncorrectable error being a hardware  
2     error of said computer or a device corresponding to said device driver.

1           8.     A method of real-time device driver error handling, comprising:  
2     installing a monitoring unit in order to monitor a state of a computer and an operating state  
3     of a device driver in said computer;  
4     storing a standard diagnosis information of said device driver in order to perform a diagnosis  
5     of said device driver;  
6     monitoring an operating state of said device driver to detect device driver errors through said  
7     monitoring unit;  
8     contacting said computer with a web server to execute a driver error handling program  
9     through a network, said driver error handling program performing a diagnosis of said device driver;  
10    confirming the device driver errors by comparing standard driver information with said  
11    device driver information of said device driver; and  
12    displaying a diagnosing result to said computer from said step of confirming the device driver  
13    errors.

1           9.     The method of claim 8, further comprising,  
2     discriminating whether the device driver error is an automatically correctable error or an

3 automatically uncorrectable error;

4 correcting the device driver error when said computer accepts a correction message in case  
5 of the automatically correctable error, thereafter displaying an error correction result; and  
6 displaying how to correct the device driver errors in case of the automatically uncorrectable  
7 error.

1 10. The method of claim 8, further comprising  
2 outputting a message of an automatic correction advice to said computer when said computer  
3 does not accept said correction message in case of the automatically correctable error.

1 11. The method of claim 8, with said step of installing said monitoring unit being to  
2 simultaneously install said monitoring unit for said device driver when said device driver is installed  
3 in said computer.

1 12. The method of claim 8, with said web server further comprising:  
2 a first portion storing said standard diagnosis information of said device driver;  
3 a second portion interpreting said device driver information searched by said monitoring unit;  
4 a third portion performing a diagnosis of said device driver by comparing said standard  
5 diagnosis information with said device driver information; and  
6 a fourth portion displaying the diagnosing result to said computer.

1 13. The method of claim 8, with said monitoring unit being a file of said computer, said  
2 file being a logical block of computer information as designated by a name and treated as a unit.

1 14. The method of claim 13, with said file not being able to be manipulated by a user of  
2 said computer.

1 15. The method of claim 8, with said standard diagnosis information being changeable  
2 by an operator of said web server.

1 16. The method of claim 9, with the automatically uncorrectable error being a hardware  
2 error of said computer or a device corresponding to said device driver.

1 17. A method, comprising the steps of:  
2 monitoring an operational state of a device driver installed on a first computer;  
3 storing standard diagnosis information of said device driver on a second computer, said  
4 standard diagnosis information being when an operational state of said device driver is normal;  
5 networking said first computer with said second computer;  
6 outputting said monitored device driver information from said monitoring of the operational  
7 state of said device driver;  
8 sending said monitored device driver information from said first computer to said second  
9 computer;  
10 comparing said standard diagnosis information with said monitored device driver information  
11 to confirm any error with said device driver;  
12 displaying instruction for correcting the error of said device driver when the error is not  
13 automatically correctable; and  
14 correcting the error of said device driver when the error is automatically correctable.

1 18. The method of claim 17, further comprising the steps of:  
2 instructing by said first computer to said second computer to execute a program after said  
3 step of networking said first computer with said second computer, said program handling the device  
4 driver error on said first computer;

5 searching for a monitoring file on said first computer by said program;  
6 executing said monitoring file through instructions of said program; and  
7 searching for said monitored device driver information by said monitoring file for said step  
8 of outputting said monitored device driver information.

1 19. The method of claim 18, further comprising the step of interpreting the monitored  
2 device driver information before said step of comparing said standard diagnosis information with  
3 said monitored device driver information.

1 20. The method of claim 19, further comprising the steps of:  
2 displaying on said first computer a result of said step of comparing said standard diagnosis  
3 information with said monitored device driver information to confirm any error with said device  
4 driver;  
5 discriminating whether the error is automatically correctable;  
6 prompting a response from said first computer as to whether a correction is to be  
7 automatically executed when the error is automatically correctable; and  
8 displaying on said first computer a result of the error correction after said step of  
9 automatically correcting the error.

1 21. The method of claim 20, with said second computer being a web server displaying  
2 a web page on said first computer for instruction by said first computer.

1 22. The method of claim 20, with the automatically correctable error being a software  
2 related error on said first computer and the automatically uncorrectable error being a hardware  
3 related error on said first computer.

1        23.    The method of claim 20, further comprising the steps of:  
2        recommending a correction of the error when the error is automatically correctable and when  
3        said first computer opted no correction in said step of prompting a response from said first computer;  
4        executing no correction of the error when the recommendation is not accepted; and  
5        correcting the error when the recommendation is accepted.